

AMENDMENTS

IN THE CLAIMS:

Please amend claim 1, as provided below:

1. (Currently Amended) An electronic transmitter device comprising a puncturing device, wherein the puncturing device comprises:
 - a first and a second data output,
and wherein the puncturing device is configured in such a way that it distributes an output data stream substantially uniformly in parallel between the first and second data outputs,

and wherein the puncturing device is further configured to provide empty locations in the output data stream so that a number of bits of an input data stream corresponds, including the empty locations, to a number of bits of the output data stream, and

wherein the puncturing device is still further configured to output, in addition to the ~~parallel~~ output data stream, a signal which indicates a position of ~~the puncturing device empty locations~~ an empty location in the ~~parallel~~ output data stream.

2. (Canceled)

3. (Canceled)

4. (Previously Presented) The electronic transmitter device as claimed in claim 1, further comprising an interleaver arranged downstream of the puncturing device in a direction of the data stream, and comprising:

a first data input which is directly or indirectly electrically connected to the first data output of the puncturing device, and

a second data input which is directly or indirectly electrically connected to the second data output of the puncturing device.

5. (Previously presented) The electronic transmitter device as claimed in claim 4, wherein the interleaver comprises an $n \times m$ interleaver, n and m being natural numbers.

6. (Previously presented) The electronic transmitter device as claimed in claim 5, wherein the interleaver comprises a first shift register which is directly or indirectly electrically connected to its first data input, and a second shift register which is directly or indirectly electrically connected to its second data input.

7. (Previously Presented) The electronic transmitter device as claimed in claim 6, wherein both shift registers are 8-bit shift registers.

8. (Previously Presented) The electronic transmitter device as claimed in claim 6, wherein the interleaver comprises a matrix register.

9. (Previously Presented) The electronic transmitter device as claimed in claim 8, wherein the matrix register comprises a 16×18 matrix register.

10. (Previously Presented) The electronic transmitter device as claimed in claim 8, wherein in each case two bits are written in parallel into the matrix register from the two shift registers.

11. (Previously Presented) The electronic transmitter device as claimed in claim 8, wherein after the two shift registers have been completely filled by inputs via the corresponding data inputs of the interleaver, their bits are input together as a bit column into the matrix register, interleaved in the manner of a comb, and in this way the bits gradually fill up a plurality of, or all of, the columns of the matrix register.

12. (Previously presented) The electronic transmitter device as claimed in claim 4, wherein the interleaver comprises an RAM and is designed in such a way that the bit pairs which pass into the interleaver are written directly to predetermined RAM addresses.

13. (Previously Presented) The electronic transmitter device as claimed in claim 4,

wherein the interleaver is configured in such a way that, using the indication signal which is additionally transmitted by the puncturing device, the interleaver detects the empty locations in the parallel input data stream coming from the puncturing device, and does not include them in the further data processing.

14. (Previously Presented) The electronic transmitter device as claimed in claim 1, wherein the puncturing device comprises one puncturing element.

15. (Previously Presented) The electronic transmitter device as claimed in claim 1, wherein the puncturing device comprises a first puncturing element and a second puncturing element which is arranged downstream of the first puncturing element in the direction of the data stream.

16. (Previously Presented) The electronic transmitter device as claimed in claim 15, wherein:

the first puncturing element comprises a first and a second data output and is configured in such a way that it distributes its output data stream substantially uniformly between its two data outputs, and

the second puncturing element comprises a first and a second data input, the first data input of the second puncturing element being directly or indirectly electrically connected to the first data output of the first puncturing element, and the second data

input of the second puncturing element being directly or indirectly electrically connected to the first data output of the first puncturing element.

17. (Previously Presented) The electronic transmitter device as claimed in claim 16, wherein:

the first puncturing element is configured in such a way that, in addition to its parallel output data stream, the first puncturing element transmits to the second puncturing element the indication signal which informs the second puncturing element about empty locations in the parallel output data stream of the first puncturing element, and

the second puncturing element is configured in such a way that, using the indication signal which is additionally transmitted by the first puncturing element, the second puncturing element detects the empty locations in the parallel input data stream coming from the first puncturing element, and does not include them in the further data processing.

18. (Previously Presented) The electronic transmitter device as claimed in claim 16, wherein the first puncturing element comprises a first data input and a second data input, and is configured in such a way that

a 1-step delay register is connected between the first data input and the first data output,

the second data input is electrically connected to a first input of a multiplexer via a 1-step delay register, and in parallel with this the second data input is directly electrically connected to a second input of a multiplexer, and

the multiplexer has an output which is electrically connected to the second data output of the first puncturing element via a further 1-step delay register.

19. (Previously Presented) The electronic transmitter device as claimed in claim 15, wherein the second puncturing element comprises two data outputs.

20. (Previously Presented) The electronic transmitter device as claimed in claim 19, wherein the two data outputs of the second puncturing element are simultaneously the two data outputs of the puncturing device.

21. (Previously Presented) The electronic transmitter device as claimed in claim 19, wherein:

the second puncturing element comprises three multiplexers which each have two inputs and one output,

the first data input of the second puncturing element is directly electrically connected both to the first input of the first multiplexer of the second puncturing element and to the first input of the second multiplexer of the second puncturing element

the second data input of the second puncturing element is directly electrically connected both to the second input of the first multiplexer of the second puncturing element and to the second input of the second multiplexer of the second puncturing element,

the output of the first multiplexer of the second puncturing element is directly electrically connected to the first input of the third multiplexer of the second puncturing element,

the output of the first multiplexer of the second puncturing element is electrically connected via a 1-step delay register to the second input of the third multiplexer of the second puncturing element,

the output of the third multiplexer of the second puncturing element is electrically connected via a 1-step delay register to the first data output of the second puncturing element, and

the output of the second multiplexer of the second puncturing element is electrically connected via a further 1-step delay register to the second data output of the second puncturing element.

22 – 30. (Canceled)

31. (Withdrawn) An electronic receiver device, comprising:

a de-interleaver; and

a depuncturing device which is arranged downstream of the de-interleaver in the direction of the data stream, the de-interleaver comprising:

a first and a second data output,

the de-interleaver being configured in such a way that it distributes its output data stream substantially uniformly in parallel between the first and second data outputs,

and wherein the de-interleaver provides empty locations in its output data stream so that a number of bits of the output data stream of the de-interleaver corresponds, including the empty locations, to a number of bits of the output data stream of the depuncturing device, and

further wherein the de-interleaver transmits, in addition to its parallel output data stream, to the depuncturing device an indication signal which informs the depuncturing device about empty locations in the parallel output data stream of the de-interleaver.

32. (Withdrawn) The electronic receiver device as claimed in claim 31, wherein the depuncturing device which is arranged downstream of the de-interleaver in the direction of the data stream comprises two data inputs, the first data input of the depuncturing device being directly or indirectly electrically connected to the first data output of the de-interleaver, and the second data input of the depuncturing device being directly or indirectly electrically connected to the second data output of the de-interleaver.

33. (Withdrawn) The electronic receiver device as claimed in claim 32, wherein

the depuncturing device is configured in such a way that, using the indication signal which is additionally transmitted by the de-interleaver, the depuncturing device

detects the empty locations in the parallel input data stream coming from the de-interleaver and fills the empty locations with soft zeros during the further data processing.

34. (Withdrawn) An electronic receiver device comprising a depuncturing device, the depuncturing device comprising two data inputs and being configured in such a way that the depuncturing device processes data streams received in parallel at both data inputs, and comprises a first depuncturing element and a second depuncturing element which is arranged downstream of the first depuncturing element in the direction of the data stream, wherein

the first depuncturing element providing empty locations in its output data stream so that a number of bits of the output data stream of the first depuncturing element corresponds, including the empty locations, to a number of bits of the output data stream of the second depuncturing element, and wherein

the first depuncturing element is configured in such a way that, in addition to its parallel output data stream, the first depuncturing element transmits to the second depuncturing element an indication signal which informs the second depuncturing element about empty locations in the parallel output data stream of the first depuncturing element.

35. (Withdrawn) The electronic receiver device as claimed in claim 34, wherein the first depuncturing element comprises:

a first multiplexer having two inputs and one output,
a second multiplexer having two inputs and one output, and
a third multiplexer having four inputs and one output, in each case a 1-step delay register is connected between
the output of the first multiplexer and one input of the second multiplexer,
the output of the second multiplexer and a first data output of the first depuncturing element,

the output of the third multiplexer and a second data output of the first depuncturing element, and

a first data input of the first depuncturing element and an input of the third multiplexer, and

the first data input of the first depuncturing element is also directly electrically connected to an input of the first multiplexer and to a further input of the third multiplexer,

the second data input of the first depuncturing element is directly electrically connected to the further input of the second multiplexer, and the third input of the third multiplexer, and

the respectively remaining input of the first multiplexer and of the third multiplexer is connected to a line on which soft zeros are made available.

36. (Withdrawn) The electronic receiver device as claimed in claim 34 wherein the second depuncturing element comprises three multiplexers each with two inputs and one output, in each case a 1-step delay register is connected between

the output of the first multiplexer and an input of the second multiplexer,

the output of the second multiplexer and the first data output of the second depuncturing element, and

the output of the third multiplexer and the second data output of the second depuncturing element, and

the first data input of the second depuncturing element is directly electrically connected to an input of the first multiplexer and to the further input of the second multiplexer,

the second data input of the second depuncturing element is directly electrically connected to an input of the third multiplexer, and

the respectively remaining input of the first multiplexer and of the third multiplexer is connected to a line on which soft zeros are made available.

37. (Withdrawn) The electronic receiver device as claimed in claim 34,
wherein:

the first depuncturing element comprises a first and a second data output and is configured in such a way that the first depuncturing element distributes its output data stream substantially uniformly between its two data outputs, and

the second depuncturing element comprises a first and a second data input, the first data input of the second depuncturing element being directly or indirectly electrically connected to the first data output of the first depuncturing element, and the second data input of the second depuncturing element is directly or indirectly electrically connected to the first data output of the first depuncturing element.

38. (Withdrawn) The electronic receiver device as claimed in claim 34,
wherein

the second depuncturing element is configured in such a way that, using the indication signal which is additionally transmitted by the first depuncturing element, if the second depuncturing element detects the empty locations in the parallel input data stream coming from the first depuncturing element and fills them with soft zeros during the further data processing.

39. (Withdrawn) The electronic receiver device as claimed in claim 34,
wherein the first depuncturing element comprises two data inputs.

40. (Withdrawn) The electronic receiver device as claimed in claim 39,
wherein the two data inputs of the first depuncturing element are simultaneously the two data inputs of the depuncturing device.

41-45. (Canceled).